



**Tufts Medical Center
Lemuel Shattuck Hospital**



Transitional Year Program

Educational goals and objectives by rotation:

Rotation name: Resident Research Elective Rotation

Type of Rotation: Elective

Length of Rotation: 4-8 weeks

STRUCTURE

A research rotation is optional for Transitional Year Residents. The Resident will discuss his/her planned research project with the Program Director for prior approval. During this time, the Resident is relieved of all clinical responsibilities.

COMPETENCY-BASED GOAL AND OBJECTIVES

Medical Knowledge and Practice Based Learning and Improvement

GOAL: The resident will understand the link between clinical and basic science research and apply these principles to the field of medicine. Upon completing this rotation the resident will be able to:

1. Research background material and previous work in the scientific literature regarding the field.
2. Master the field of investigation.
3. Design specific experiments with adequate control groups in order to answer specific aims of their research plan.
4. Think ahead to possible interpretations of the data and design the experiment to answer these questions prospectively.
5. Design experiments that are practical from an economic and labor standpoint.
6. Perform the experiments in a technically facile manner, interpret the results and draw conclusions supported by the data.
7. Perform a statistical analysis of the results and be able to report these results in an abstract and in complete scientific paper form.
8. Recognize various factors in writing and obtaining intra and extramural support for future research.
9. Describe and understand the link between clinical and basic science research.
10. Describe and understand the importance of the physician scientist in leading medical research.
11. Know the requirements of academic surgery.

SPECIFIC OBJECTIVES

1. Design, research, perform, interpret and report scientific experiments.
2. Master several advanced scientific techniques including but not specifically, techniques of molecular biology, physiological measurement, experimental animal handling and surgery.
3. Master specific statistical methods and general interpretation of statistics both specifically and as research and generally in scientific surgical research.
4. Participate in clinical study designing or assisting implementation.
5. Present results of original basic science or clinical research work at national meetings and local forums.